

## Research Article

# Mapping the Reproductive Health Communication Landscape: A State-of-the-art Review

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### Abstract

**Background:** Reproductive health communication encompasses family planning, maternal, neonatal and child health, and sexual and reproductive health communications for adolescents and youth as fundamental elements for intervention. The objective of this study was to summarize, examine, and identify gaps in the theoretical, methodological, empirical, and measurement literature on reproductive health communication as it relates to Ethiopia.

**Methods:** A systematic search was conducted using electronic databases such as the Medical Literature Analysis and Retrieval System (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Psychological Information (PsychINFO), and Google Scholar to locate theoretic, psychometric, and empirical literature on reproductive health communication.

**Results:** Local literature identified by the databases were mainly based on cross-sectional designs, had small sample size and lacked essential psychometric protocols. Results showed that most studies replicatively focused on spousal communication centering reproductive choices and decisions. A common strategy was to use student populations as data sources limiting the generalizability of findings.

**Conclusion:** The need for more diverse designs and areas of investigation using better instrumentation is indicated.

**Keywords:** communication, reproductive, family planning, child, spouse, health

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## 1. Introduction

Globally, reproductive health communication has taken a center stage in a broad array of topics that concern individual, family, and community well-being, subsuming important areas such as health informatics, client-provider interchanges, cross-cultural medical encounters in reproductive realms, sexuality, interagency cooperative communications

among reproductive health institutions, program support services, reproductive health-care marketing, reproductive health promotion services, and mediated national policy and practice discourses on key reproductive topics [1–3].

In addition, reproductive health is taken as encompassing seven domains that include physical health, psychological well-being, physical functioning, sexual health, vigor and vitality, cognitive functioning, and pain and discomfort. Further categorization includes adolescent health; child health; maternal, fetal, and perinatal health; population and health; and women's sexual and reproductive health [4, 5].

While the definitional core typically includes gynecological, obstetric, contraceptive well-being and functioning, more standardized definitions address more domains. The research challenge nevertheless is how reproductive health communication has addressed these fundamental issues requiring self-management as well as more institutionalized care.

The use of mass communication technologies has been the core of reproductive health communication, especially those called legacy media such as broadcast modalities including radio and TV as well as print-based media interventions. A meta-analytic study of the period between 2005 and 2015 covering 31 countries of Saharan African found that exposure to mass media family planning communication campaigns indeed had a modest effect [6].

Traditional media/legacy media, and more recently digital affordances, have been a significant asset in reproductive communication given their efficiency as mass communicators and their ability to affect behavior and induce change in particular reference to reproductive health and family planning programs at the national level [7, 8]. Media can set the national agenda highlighting certain topics such as reproductive health as national priorities. What this means is that they induce national conversation on the subject and help to involve important stakeholders to grapple with the issues identified as particularly salient. The impact is on creating more behavior change communication at the interpersonal, familial, group, and intergroup levels [9]. This change can be further aided via spiritual communication, workplace, school, and neighborhood conversations demonstrating the triple effect of mass media communications on reproductive health. Media can further frame issues in ways they find appropriate ensuring messages are understated in certain preferred ways, dispelling myth through appeal to authority of experts, and to take messages seriously with regard to, for instance, health threats from unsafe sexual practices [10].

There have been several projects in Africa and elsewhere in the developing world involving the use of mHealth for reproductive health promotion [11]. A global survey showed that while mHealth for reproductive communication is widespread, the developing world has yet to catch-up. Of the 17 projects surveyed involving mHealth for SRH, two were from Ethiopia involving Marie Stopes and Pathfinder Ethiopia on contraceptives, family planning, and HIV AIDS issues [12]. In several other studies, cellphones have been considered as ideal for addressing youth in SRH promotion because they are closer to technology than other groups in addition to being cost-effective and efficient [13].

The technology in use helps address security and confidentiality concerns in SRH given the cultural and interpersonal sensitivities involved in face-to-face interchanges with providers. However, the affordances do not provide absolute protection of anonymity in the face of the culture of mobile phone sharing in parts of the developing world and so challenges remain in the adoption of the technology for SRH promotion and sensitive topics such as HIV AIDS and sexual stigmas. With deeper cellphone penetration as a result of affordability and telecom infrastructural expansions as well as software developments aiding more privacy control, mHealth has a huge promise as a technology of huge import in low- and middle-income countries including Ethiopia. Their relevance in terms of empowering women and girls in particular is set to increase demonstrating the emancipative power of technology in terms of a more equitable modality of gender relations [14].

A survey of 44 pertinent studies showed that the Behavior Change Communication (BCC) was undertaken with a focus on African countries and the topics of AIDS and family planning. The literature indicates that a broader evidence base of current interventions is in demand to scale-up interventions with modifications [15].

Another large-scale study found that women were limited in their cellphone access freedoms due to partner inspection, or were of limited competence receptively and expressively, and those with AIDs and reproductive issues were worried about the absence of privacy and anonymity protection which their health conditions and information needs place them at risk of identifiability [16]. A review of studies showed communication campaigns employed included systematic reviews, experimental and randomized, longitudinal, time series, multi-method, test–retest, cross-sectional, content analysis, and other designs [17].

## 2. Materials and Methods

### 2.1. Methods

A systematic search was conducted using electronic databases such as the Medical Literature Analysis and Retrieval System (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Psychological Information (PsychINFO), and Google Scholar to locate theoretic, psychometric, and empirical literature on reproductive health communication.

## 3. Results

A significant focus in recent scholarship has been on measurement issues and theorizing in reproductive health communication. There is also a limited but growing field studies literature on the subject.

### 3.1. Measurement of reproductive health communication

Measurement is vital to gauge the quality of communication and information services in medical settings and to determine the impact of any overhaul and attendant communication design changes as part of a major strategy to improve patient experience. Measures are also important to benchmark in order to compare the future measures with. Patient trust, hospital and doctor reputation, client's word of mouth can be elevated using strategic communication that is systematically planned and evaluated. The measures that tap the patient perspective can be modified or translated as may be necessary to suit local contexts but it is important that the necessary validation is done expertly before these foreign-origin inventories and scales are deployed [18, 19] in areas such as family planning [20, 22]. Instrument development has covered in more specific terms: decision-making [23], Sexual Coercion in Intimate Relationships Scale [24], attitudes toward gender norms (GEM Scale) [25], Reproductive Autonomy Scale [26], Sexual Relationship Power Scale [27], Sexual Assertiveness Scale [28], Revised Conflict Tactics Scale [29], The Quality of Marriage Index (QMI) [30].

### 3.2. Theorizing reproductive health communication

In healthcare settings, communication may be defined as a verbal and nonverbal transaction that is a purpose-driven, targeted process with intended behavioral modification outcomes expressed in terms of the adoption of healthy behaviors and lifestyles.

In theoretical terms, communication can be complex due to the fluidity of its constituent elements as well as the dynamic character of interchanges, yet it can be planned and measured. The human agency in morbidity and mortality is well-documented and behavior which can be modified using strategies of communication is center stage as the subject of interventions using principles and theories that delineate human health behavior. Thus, theory-based communication interventions are believed to make a significant difference in wellness and illness. The use of appropriate theory in health communication planning and intervention helps several functions that include description, explanation, and prediction as well as diagnosis and measurement of potential outcomes for instance in the matter of reproductive and sexual health. A growing body of evidence indicates that theoretically informed health interventions including those aimed at reproductive health promotion are highly likely to meet goals they set out to achieve [31].

Several theories underpin reproductive health promotion and the pathways to outcomes. A common observation is that interventions are not theory-driven [32], which does hamper conceptually driven goals, inputs, processes, and measurement of evidence. For instance, a study found that safe sex messages in reproductive health leaflets did not target cognitive and behavioral issues and were in consequence of limited strategic utility in regard to condom use promotion [33]. Optimal outcomes require a careful consideration of theoretical insights and conceptually-driven health messages [34].

These may be typologized broadly as intrapersonal (Transtheoretical Model-Stages of Change, Theory of Planned Behavior, Health Belief Model, Protection Motivation Theory), interpersonal (social cognition), community level (ecological models), and other (e.g., Diffusion of Innovations Theory) [35]. Reproductive health promotion has employed a diverse set of these health communication theories but the most commonly used are limited. Several reviews of these have addressed the major conceptual underpinnings [36, 38].

### 3.3. Field studies

The international empirical literature on reproductive health communication is varied and vast. However, the use of theory-to-guide communication interventions seems to be rather limited. There is also the tendency to depend entirely or mostly on questionnaires with the worst part being that the questionnaires used were unstandardized, unpiloted whose psychometric properties were highly questionable.

Local studies also tended to be replicative and the focus of the majority of the studies was adolescent child–parent communication with regard to reproductive and sexual issues. Findings typically mentioned the cultural factor as an impediment to more fruitful sexual communication at the household level but comparison across studies would be complicated because of the differences in instrumentation. Further reports of psychometric properties of instruments in local studies are rare. Thus, we do not know how valid or reliable the measures in use are which leads to questioning the utility of findings reported. However, there were also large-scale studies that showed media had a significant impact on reproductive services use in both urban and rural settings [39]. However, the studies failed to disaggregate impact by media type, that is, broadcast versus print media, limiting the study's utility.

Another study of spousal communication centering on reproductive decisions was reported as involving a significant percentage (60 %) of change effects in shared decision-making in Ethiopia's Amhara region [40]. The significance of the broadcast media is demonstrated in an Ethiopian study based in Addis Ababa which reports that the typical woman receives her family planning information from radio and television [41]. Another Ethiopian study employing a quasi-experimental study design reported that men in the treatment group had significantly higher levels of readiness for family communication on reproductive issues than the control group [42]. However, issues of lack of statistical sophistication and the necessary controls are disturbing. For instance, sample size and effect size considerations are not worked out with regard to issues of precision.

Considering that they were commissioned, campaign evaluation studies seemed to fare better. For instance, those of Population Media Center are planned, large sample based, and multi-method studies. Informed by entertainment education theories, a Population Media Center serial radio drama broadcast through Ethiopia Yeken Kignit ("Looking over One's Daily Life") over the period June 2, 2002 and November 27, 2004 was rated as successful in terms of producing behavioral modification in reproductive and sexual health. Program impact was measured taking a baseline survey in May 2002

and a post-broadcast survey in December 2004. The following effects were reported. While mass media-delivered communication campaigns in developing countries have reported mixed results [43, 44], the impact the Ethiopian study seems to have shown a significant effect of mass communication reproductive health promotion [45, 46].

While the results are impressive, there is nevertheless a need of a benchmarking to compare the results across countries which is complicated by a number of national variables including cultural issues. However, best practices for mass media-based reproductive health communication can be identified [47]. Studies have included reproductive health communication strategies [48], adolescent sexuality [49], sexual communication bottlenecks [50], adolescent–parent communication [51], parent–adolescent discussion on RH issues [52], assessment of the awareness and attitude of both study groups on major Family Life Education (FLE) components [53], and assessment of the level and factors influencing communication between school students and parents on sexual and RH issues [54, 59].

## 4. Conclusion

Interventions in health programs at all levels remain incomplete unless they address the communication component which is extremely vital in healthcare in particular. It is therefore not only important to measure a patient's communication experience but also to do so using valid and reliable instrumentation. Communication is also an important correlate of diverse hospital outcomes including litigation issues arising from inadequate communication in diagnosis and dispensing.

Based on the principle that the biomedical orientation is inadequate, the study has reviewed important dimensions of patient experience that pertain to available theories of health communication, identify psychometric properties of measures of reproductive communication, and vet empirical studies of health communication interventions at the dyadic and mass communication levels. Ethiopian studies on the subject were reviewed extensively. Further research is called for that addresses the use of media in reproductive health communication context interpersonally, medially and in a broad variety of other formats.

## Ethical Considerations

No animal or human studies were carried out by the author.

## Conflict of Interest

The author reports no conflict of interest.

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